

AMENDMENTS TO THE CLAIMS

1 (Previously Presented) A dental implant system that bears compressive mastication load conditions after installation, the system comprising

a rigid implant including a connector sized and configured to be attached to a dental prosthesis,

an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane; and

the rigid implant being sized and configured to fit within the polymer sheath, the polymer material means being operative for expanding and thereby compressing surrounding jawbone structure in response to fitment of the rigid implant and, while in compression, for bearing compressive mastication load conditions.

2 (Previously Presented). A system as in claim 1 or 39

wherein the polymer material means includes Ultra High Molecular Weight Polyethylene.

3 (Previously Presented). A system as in claim 1 or 39

wherein the polymer material means includes Polypropylene.

4 (Previously Presented). A system as in claim 1 or 39

wherein the polymer material means includes High Density Polyethylene.

5 (Previously Presented). A system as in claim 1 or 39

wherein the polymer material means includes Polyurethane Elastomer.

6 (Previously Presented). A system as in claim 1 or 39

wherein the implant is made of titanium or an alloy thereof.

7 (Previously Presented). A system as in claim 1 or 39

wherein the implant is made of stainless steel or an alloy thereof.

8 (Previously Presented). A system as in claim 1 or 39

wherein the polymer sheath has an exterior surface that is ribbed.

9 (Previously Presented). A system as in claim 1 or 39

wherein the polymer sheath has an interior surface that is threaded, and

wherein the implant has an exterior surface that is threaded, and

whereby the interior surface of the polymer sheath mates with the exterior surface of the implant when the implant is fitted within the polymer sheath.

10 (Previously Presented). A system as in claim 1 or 39
wherein the implant is tapered.

11 (Previously Presented). A system as in claim 1 or 39
wherein the implant is ribbed.

12 (Canceled)

13 (Previously Presented). A dental implant system that bears compressive mastication load conditions after installation, the system comprising

a dental prosthesis,

a rigid implant including a connector sized and configured to be attached to the dental prosthesis,

an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane; and

the rigid implant being sized and configured to fit within the polymer sheath, the polymer material means being operative for expanding into compression within the jawbone in response to fitment of the rigid implant and for bearing compressive mastication load conditions on the dental prosthesis.

14 (Previously Presented). A system as in claim 13 or 44
wherein the dental prosthesis is a single crown.

15 (Previously Presented). A system as in claim 13 or 44
wherein the dental prosthesis is a bridge.

16 to 19 (Canceled)

20 (Previously Presented). A method of installing a dental prosthesis comprising the steps of:

providing a system as in claim 1;

providing a dental prosthesis;

preparing a site within a jawbone;

inserting the polymer sheath into the prepared site;

inserting the implant within the sheath, thereby causing expansion of the polymer material means within the jawbone; and

attaching the dental prosthesis to the connector.

21 (Previously Presented). A method as in claim 20

wherein the dental prosthesis is a crown.

22 (Previously Presented). A method as in claim 20

wherein the dental prosthesis is a bridge.

23 – 33 (Canceled)

34 (Previously Presented). A dental implant that bears compressive mastication load conditions after installation, the implant comprising an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane, the polymer material means further being operative for expanding and thereby compressing surrounding jawbone structure in response to fitment of a rigid body into the sheath and, while in compression, for bearing compressive mastication load conditions

35 (Previously Presented). An implant according to claim 34 or 43

wherein the polymer material means includes Ultra High Molecular Weight Polyethylene.

36 (Previously Presented). An implant according to claim 34 or 43

wherein the polymer material means includes Polypropylene.

37 (Previously Presented). An implant according to claim 34 or 43

wherein the polymer material means includes High Density Polyethylene.

38 (Previously Presented). An implant according to claim 34 or 43

wherein the polymer material means includes Polyurethane Elastomer.

39 (Previously Presented). A dental implant system that bears compressive mastication load conditions after installation without a presence of osteo ingrowth, the system comprising

a rigid implant including a connector sized and configured to be attached to a dental prosthesis,

an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane; and

the rigid implant being sized and configured to fit within the polymer sheath, the polymer material means being operative for expanding and thereby compressing surrounding jawbone structure in response to fitment of the rigid implant and, while in compression, for bearing compressive mastication load conditions without a presence of osteo ingrowth.

40 (Previously Presented). A method of installing a dental prosthesis comprising the steps of:

providing a system as in claim 39;

providing a dental prosthesis;

preparing a site within a jawbone;

inserting the polymer sheath into the prepared site;

inserting the implant within the sheath, thereby causing expansion of the polymer material means within the jawbone; and

attaching the dental prosthesis to the connector.

41 (Previously Presented). A method as in claim 40

wherein the dental prosthesis is a crown.

42 (Previously Presented). A method as in claim 40

wherein the dental prosthesis is a bridge.

43 (Currently Amended). A dental implant that bears compressive mastication load conditions after installation without a presence of osteo ingrowth, the implant comprising an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane, the polymer material means further being operative for expanding and thereby compressing surrounding jawbone structure in response to fitment of a rigid body into the sheath and, while in compression, for bearing compressive mastication load conditions ~~with~~ without a presence of osteo ingrowth.

44 (Previously Presented). A dental implant system that bears compressive mastication load conditions after installation without a presence of osteo ingrowth, the system comprising

a dental prosthesis,

a rigid implant including a connector sized and configured to be attached to the dental prosthesis,

an expandable polymer sheath suitable for placement within a jawbone, the sheath including polymer material means for functioning as an artificial periodontal membrane; and

the rigid implant being sized and configured to fit within the polymer sheath, the polymer material means being operative for expanding into compression within the jawbone in response to fitment of the rigid implant and for bearing compressive mastication load conditions on the dental prosthesis without a presence of osteo ingrowth.